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ABSTRACT

To update a 1984 study of the status and use of microcomputers in Jackson and Josephine Counties (Oregon), revised questionnaires were distributed to the 82 schools contacted in the initial survey. Two forms were used: school and individual teacher. The school survey addressed makes and models of computers in the building, locations of the computers, management programs being used, district office connections, resource people, staff training needs, use of classified staff, adult education, curriculum integration, and implementation of software. The teacher survey sought information in the areas of teacher training, use of computers, training needs, and student use of computers. Based on 64 responses (77%), findings indicate the presence of 763 microcomputers in the schools, a significant increase over the 1984 total (607). Apple was the most common computer brand (58%) used and 49% of the microcomputers were located in computer laboratories. Of the 1,013 individual staff members who responded, 74% reported they could load and run a computer program; 55% had received formal training in computer literacy. Instruction accounted for 62% of all actual and desired computer use (the survey question was inadvertantly ambiguous). The emphasis was on computer assisted instruction for drill and practice at all levels. The primary language being taught was BASIC, followed by Logo. The area of the curriculum in which computers were most used was math in both elementary (81%) and secondary (85%) schools. Approaches to evaluating, acquiring, distributing, and storing software varied greatly. Three areas of teacher training needs emerged as important: computer literacy, "hands-on" time with the computer, and assistance with software evaluation. Sample innovative projects, a list of "computer experts," and a 24-item list of suggested readings are included. Appendices contain sample school and teacher surveys. (JB)

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COMPUTERS IN THE SCHOOLS:

A FOLLOW-UP REPORT

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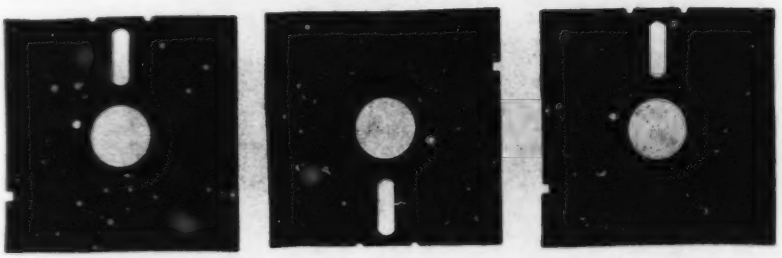

A SORD PROJECT

JACKSON EDUCATION SERVICE DISTRICT

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SOUTHERN OREGON

RESEARCH AND DEVELOPMENT COMMITTEE

C O M P U T E R S I N T H E S C H O O L S :

A F O L L O W - U P R E P O R T

by

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August 1985

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Leslee Parr and Rich Miles

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PURPOSE

The purpose of this study was to assess the current status of computers in education in Jackson and Josephine Counties, comparing and contrasting these findings with those of a similar study reported in 1984. Findings are also compared with national trends revealed in a review of current literature. Conclusions and questions of concern are directly drawn from the data and comparisons made.

RESEARCH OBJECTIVES

The objectives for this study were:

1. To determine the number of makes and models of microcomputers purchased in Jackson and Josephine County schools

2. To determine how many microcomputers are placed in computer labs, regular classrooms, special education classrooms, libraries, and offices in Jackson and Josephine County schools

3. To identify computer resource personnel in each building in Jackson and Josephine County schools

4. To identify training and/or inservice needs of teachers in Jackson and Josephine County schools

5. To identify districts in Jackson and Josephine Counties providing microcomputer adult education, and/or parent orientation, and to determine the scope of these programs

6. To identify which content areas of the curriculum are utilizing computer assisted instruction (CAI) in the schools of Jackson and Josephine Counties

7. To determine if schools in Jackson and Josephine Counties are using a planned scope and sequence in computer education

8. To determine how schools in Jackson and Josephine Counties are evaluating, purchasing, storing, cataloging, and implementing computer software

9. To assess how and to what extent students in Jackson and Josephine Counties are using computers, by determining the number of hours students spend each week on computers in each content area or grade level, and the type of assisted instruction being used, e.g., drill-and-practice, programming

10. To determine how and to what extent teachers in Jackson and Josephine Counties are using computers for class management, assisted instruction, and personal use

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PROCEDURE

While analyzing the 1984 Southern Oregon Research and Development (SORD) surveys that led to the report, COMPUTERS IN THE SCHOOLS OF JACKSON AND JOSEPHINE COUNTIES, the researchers were aware of the need to clarify and extend the instrument to obtain more complete data. When asked by SORD in the fall of 1984 to conduct a follow-up study, the survey form was the first area of focus. Each section of the previous survey was analyzed for ambiguity, and several items were rewritten. The 1984 survey was designed for response by one person in each building, yet many of the questions concerned the entire staff. Thus the respondent would either have to contact all members of the staff or make estimations. The quality of such responses was felt to be questionable. To strengthen the quality of responses in the current study, an individual teacher survey for each building staff member was included with the survey for building and district level experts.

The school survey addressed the areas of makes and models of computers in the building, locations of the computers, management programs being used, district office connections, resource people, staff training needs, use of classified staff, adult education, curriculum integration, scope and sequence, and purchase, storage, cataloging, and implementation of software. The teacher surveys addressed the areas of teacher training, use of computers, training needs, and student use of computers. In attempting to keep the surveys simple and quantitative, many of the questions were forced-response rather than open ended. (See appendix for sample surveys).

The new survey form used in the current study was reviewed by SORD in April 1985, revised, and printed. It was then distributed to the 82 schools in Jackson and Josephine Counties in May of 1985, with a cover letter directed to building principals. Responses were returned to Jackson ESD during May and June, 1985, and were then compiled during the following summer using a data base computer program. 77% of the school surveys were returned--a significant drop from the 98% response level of the previous study. This drop might have been due to the brief period of time between the two surveys and/or the fact that distribution occurred in May rather than in February, as was the 1984 survey. The teacher surveys had a higher return rate, representing 85% of the schools in the two counties.

After compiling the data, the researchers sought to find current patterns of information that would provide a more complete view of the status and uses of computers in education across the two-county region. The present analysis goes one step further than the 1984 study by comparing and contrasting the data from the two reports as well as presenting the findings, conclusions, and questions of concern.

LIMITATIONS OF THE STUDY

One of the drawbacks in using a survey instrument in research is the fact that weaknesses are often found after the fact. Though one of the prime motivators of restructuring and readministering the 1984 survey was to improve and extend the quality of information, the new instrument also contained ambiguities, found after it was administered. As might be expected, survey results were inherently dependent upon the respondent's interpretation of the questions. For example, the question, "What uses do you have for computers?" was intended to determine in what ways teachers were using computers. Instead, responses were often directed toward how teachers would like to use computers. When the question was asked, "How are computers being used by students?" some respondents reported for the entire school rather than for their own classrooms. Rewording these questions might have helped to clarify intent.

As addressed in the procedures, the release of the survey at the end of the school year might have contributed to the fact that the return rate was not as high as expected. Though a 51% teacher return and a 77% school return provides a fairly large window into Jackson and Josephine County classrooms, this report is only as complete as the rate of return provided. However, even though responses were limited, this latest report presents a more complete view of local computer education than did the 1984 report. Recognition must also be given to the fact that those staff members who did not respond might significantly change certain findings had they responded. Perhaps they had no computers in their classrooms.

Notation should also be made that this study is only current as of the spring of 1985. Since summer is the major time of purchases for school districts and for new program development, a safe assumption would be that districts have made even further progress in the area of computer education than indicated in this report.

LITERATURE REVIEW

Most observers of education in the United States have probably concluded that microcomputers in the schools are here to stay. During the past several years American schools have spent a large portion of their limited discretionary funds on the purchase of microcomputers and related instructional materials. Yet many educators are still uncertain about the educational role of this equipment.

In the 1984 SORD report, COMPUTERS IN THE SCHOOLS OF JACKSON AND JOSEPHINE COUNTIES, Brim, et. al., August 1984, several issues, questions, and conclusions were identified concerning the state of computer education in local schools. Some of these conclusions and issues will follow. The researchers hope that this 1985 study will update, elucidate, and further address many of these issues.

In analyzing responses to the 1984 survey, the researchers found that there were 607 microcomputers in the schools of Jackson and Josephine Counties, yet only one school district reported a district-wide computer plan in place at that time. The lack of systematic and comprehensive long-term planning prior to the aquisition of microcomputers was also identified as the major weakness in integrating microcomputers into school programs in a nationwide mail survey of 400 schools in 50 states (MICROCOMPUTERS IN THE SCHOOLS, Schimizzi, 1983). If schools continue to aquire hardware, purchasers must not ignore the neccessity for first initiating district wide plans for integration ("Educational Computing, The Burden of Insuring Quality," Komoski, PHI DELTA KAPPAN, December 1984, and "MICROMAC at Rosemount High School," Wilson, PHI DELTA KAPPAN, December 1984).

The 1984 SORD study found approximately twenty microcomputer makes and/or models reported in the two county region, with Apple (46%) and Commodore (21%) leading. In two national surveys (MICROCOMPUTER USE IN THE SCHOOLS: A RESEARCH REVIEW, Ogletree and Haskins, 1983, and Schimizzi's report cited earlier), Apple again was found to be the most common. Radio Shack's TRS-80 placed second and Commodore Pet third.

The two national level surveys mentioned did not address total makes and models present. However, the appearance of 20 different varieties in Jackson and Josephine County schools—a relatively small local region—with several districts reporting more than six varieties, caused these researchers to question the intent and planning that led to these diversities. It appeared that greater efficiencies might be realized in repair, maintainance, and initial purchase if the range of makes and models were coordinated within districts and/or among districts.

In the 1984 Jackson-Josephine Counties survey, 39% of the microcomputers were reportedly located in computer laboratories, while 27% were assigned permanently to classrooms. Rotation of machines throughout the building involved 17% of the total number.

In Henry Becker's analysis of data collected nationally, he concluded that

where microcomputers are located in schools has an impact on how they are used (HOW SCHOOLS USE MICROCOMPUTERS, Becker, March, 1985). Becker found that keeping microcomputers solely in classrooms has largely negative consequences, (e.g., less overall use, more use for drill-and-practice than for programming). However, this system does improve equity of use between below average and average students in secondary schools. Putting computers into a laboratory situation, in contrast, has generally positive consequences, except for equity. Rotating microcomputers from room to room is generally positive for secondary schools and improves equity and access at elementary schools, but students apparently lack a sufficient amount of time to accomplish much learning.

Though Becker's results are generalizations of trends observed in schools under many different circumstances, they serve as helpful guideposts when considering the current survey results. Careful consideration should be given to which arrangement is most efficient and accessible for student use in a particular school, as well as most compatible with the way students learn.

Responses to the 1984 survey revealed that more than 90% of microcomputers in the schools of Jackson and Josephine Counties were for student use. This figure was significantly higher than the 71% reported in Schimizzi's 1983 national survey (op. cit.). Though Becker found microcomputers present in more than two thirds of U.S. schools (the SORD study found them in all schools surveyed), he believes this does not necessarily mean that most students are getting exposure to them, nor that they are being intensively used.

In Schimizzi's study, 51% of the respondents indicated that the amount of time that each student worked at a microcomputer varied from 15 to 60 minutes per week. Becker found that students actually used a micro for 15 minutes or less per week--about 3 minutes per day. Most elementary students were getting only 10-15 minutes per week while only one in fifty had more than one hour of time at a computer in any given week. Secondary schools typically had two to three times as many microcomputers per building. Consequently, students who used computers had an opportunity to use them for longer periods of time. The median number of minutes per week of microcomputer use for student users was 23 minutes per week for elementary students and 45 minutes per week for secondary students, according to Becker. The 1984 Jackson-Josephine study did not address hours of student use, but since the researchers felt this relevant to the issues, the 1985 report did request information.

Another issue in student use and access is equity. There are serious implications for how well children are equipped to find jobs as "computer literacy" becomes more important in our society ("Educational Computing: The Burden of Insuring Quality," Komoski, PHI DELTA KAPPAN, Dec. 1984). Schimizzi (op. cit.) found that microcomputers were being used by all types of students including the statistically ordinary, the talented and gifted, and the slow or handicapped. Becker and Campbell ("Computers and Equity", EDUCATIONAL DIGEST, March 1985), on the other hand, found broad differences

in how computers are presented and used in various student groups. Wealthier public schools spend far more money on computer aquisition. Drill-and-practice tends to be emphasized in remedial classrooms, while programming is seen as the purview of the gifted and talented. Although at least half of all students are female, two out of every three students learning about computers are male (Campbell, 1985). These apparent biases should be addressed; equal access to computers apparently, in come cases, also means equal educational benefits.

In the 1984 SORD survey, almost half of the responding schools were introducing children to microcomputers at the kindergarten and first grade level. Schimizzi (op. cit.) found, too, that 68% of the schools in his survey introduced microcomputers in grades K to 6. Concerns with these findings center on the "other half" of the population. Are children who are not being introduced to microcomputers at these early ages likely to be at a disadvantage? How will districts deal with these apparent inequities? Are districts planning to meet the potential challenges that this early introduction to computers may be creating?

Of all the ways in which schools might be using computers to assist in instruction, three ways were most frequently mentioned in the survey results: to provide students with a general introduction to what computers are and how they can be used (computer literacy), to teach rudimentary computer programming languages, and to provide drill-and-practice time for math computation and language arts facts and skills. In the 1984 SORD survey there appeared to be a very strong emphasis on computer assisted instruction (CAI) for drill-and-practice at all grade levels. Becker (op. cit.) found that beyond computer literacy, computer programming was clearly the preferred activity in secondary schools, while drill-and-practice was the most prevalent applicaton of microcomputers in elementary schools. In Schimizzi's study (op. cit.), most of the respondents (81%) indicated that microcomputers were used mainly for drill-and-practice and problem solving, while 11% used equipment to teach programming.

The 1984 SORD report cited the overwhelming use of drill-and-practice CAI in Jackson and Josephine Counties. Researchers questioned this application as being the most efficient use of costly equipment. Further, it was suggested that problem solving and critical reasoning programs might be more appropriate uses for computers. Paul Bonner ("Does Computer Assisted Instruction Work?," COMPUTERS AND ELECTRONICS, Bonner, March 1985) found that 60-80% of the educational software available today falls into the drill-and-practice category. He feels that drill-and-practice on computers does little more than duplicate something that is already being done in workbooks and texts. He further believes that the situations in which drill-and-practice software is appropriate are too few to justify its overabundance on the market and in the schools. He quoted Dan Weaver, coordinator of MicroSIFT's educational software evaluations: "The general public is becoming more critical of drill-and-practice and tutorial packages. People are realizing that while the computer can do that and do it fairly well, there are other things that the computer can do that workbooks and textbooks really can't do."

Not only does drill-and-practice software seem to underutilize the computer's special capabilities, but, according to Bonner, who quotes Jay Sivin of EPIE's evaluators, "Drill-and-practice doesn't suit itself terribly well to a lot of high school fields, where the idea isn't so much simple memorization as interconnecting ideas and developing the ability to apply ideas . . ."
Fortunately, the second kind of software is beginning to emerge--software that simulates real world events and gives students educational experiences otherwise unavailable. Most simulations are designed to help develop problem solving or "higher cognitive" skills, rather than to pass a specific body of knowledge on to the student.

Henry Becker (op. cit.) discovered through his 1983 survey that a greater number of reporting schools experienced a decline in the use of microcomputers for drill-and-practice than reported an increase over their initial applications. The more microcomputers that were in schools, the more they were being used for teaching programming and the less they were being used for drill-and-practice. This was true for both elementary and secondary schools. Becker felt two inferences were possible. After having tried both drill and programming uses, perhaps schools find it more useful to employ these machines to expand the curriculum (teaching students about computers and how to use them as a tool) rather than to provide another means to teach traditional subject matter. Alternatively, it may be that "pioneer" schools became disenchanted with drill-and-practice software available at the time and did not venture back to examine more recent software products. Schools that more recently became microcompter owners were trying to use more recently developed materials. Trends in Jackson and Josephine Counties relating to this issue will be presented and analysized in the report which follows.

While current opinion appears to favor programming and problem solving software over drill-and-practice, Jerry Willis ("An Overview of Educational Computing," THE EDUCATIONAL DIGEST, Willis, December 1984) feels that it is not enough to provide a few programming classes for students who think they may major in computer science in college. He feels that to use scarce computer resources solely for this may, in fact, be counterproductive in light of the current shift to an information-oriented society. Willis believes computers should be a universal topic of study in schools today, not treated as a machine run by "technological high priests" when, actually, the high school student who will become a teacher, a lawyer, a nurse, an artist, or a farmer will also use computers. Willis says, "Helping those students overcome their hesitations about computers and become computer-literate is a more important goal than offering programming courses to a few students."

Computer literacy for students and teachers did appear to be a common aim among reporting districts in the 1984 SORD study. This 1985 survey examines the stance of the local schools on these issues: what skills are required, which languages are empahsized, and to what degree have computers been integrated across the curriculum.

In the 1984 SORD study, computer curricula appeared to be spotty, with little evidence of articulation across all levels. One exception was reported, and two additional districts were then working toward a K-12 district-wide curriculum. The necessity for an orderly, defined curriculum scope and sequence was questioned, since there was a feeling that a tremendous range of differences would result from incidental instruction.

Schimizzi (op. cit.) concluded from his 1983 survey that the lack of systematic and comprehensive long-term district planning before microcomputer aquisition was the major weakness in integrating microcomputers into school programs. Schimizzi found that 10% of schools surveyed had no plan before the aquisition of hardware. Those schools which did report a plan indicated that their planning was only for one or two specific areas, such as curriculum or space utilization.

Schimizzi felt complete planning to be the single most important factor in the success or failure of a microcomputer program. He also identified 45 key procedural planning steps in his report and stated,

> The planning for implementing microcomputers in the schools should include provisions for increasing computer literacy, encouraging teachers to learn programming, and to teach programming to learners, familiarizing teachers with the several computer-assisted instruction capabilities of microcomputers, and encouraging the use of microcomputers in all curriculum areas and with all children, including those with special needs. The planning should include provisions for the inservice training of teachers, both within the schools and at nearby colleges and universities.

Professional development was reported to be extremely important in the 1984 SORD survey. 86% of the responding districts had staff members involved in some type of inservice with computers. This statistic may be misleading, however, because of the 1984 survey method which involved only one staff member per school. In the 1985 survey every staff member at each school was asked to respond. The issue of professional development was consequently addressed more completely. Briefly, at this point, a strong need for further training and inservice seems evident, based on the many strong requests for further (or even initial) training from teachers responding to the survey.

Paul Rickerson states in this report (MICROCOMPUTERS IN SPECIAL EDUCATION: USES AND NEEDS IN JACKSON COUNTY, Rickerson, Jackson ESD, April 1985), "The results of this study suggest that special educators have endorsed the use of microcomputers in teaching special education students, but need increased training and support in order to realize effective and efficient use from this educational technology."

In a report by Rosemount (Minnesota) High Schools principal, Thomas Wilson, ("MICROMAC at Rosemount High School," PHI DELTA KAPPAN, Wilson, December

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1984) the success of Rosemount's computer education program was attributed to a mandatory inservice course on microcomputers. Wilson states that "Just about everyone at Rosemount High School in Minnesota has been using computers daily for a decade." The success of Rosemount in applying microcomputers to every facet of its operation has not come about by chance. Virtually every one of the 120 faculty members has completed the mandatory 10-hour course on introduction to microcomputers and nearly 100 staff members have taken additional optional courses dealing with microcomputers, taught by the computer science teachers or by faculty members at local colleges and universities. As a result of this training, some 75 teachers at the high school are conducting their own word-processing and data base activities using the school's computers.

David Moursund states in his study (MICROCOMPUTER APPLICATIONS IN EDUCATION: NOW TO THE NEXT DECADE, University of Oregon Department of Computer and Information Services, ERIC 017 121) that the teacher's knowledge, skills and attitude will determine the fate of computer education in our schools. He maintains, "No matter how many computers we get, no matter how good software gets, quality education is going to depend on quality teachers. Educators looking to the future will need to put money into hardware and software, but will also need to put a lot of money into teacher education if they're going to have teachers who can take advantage of this hardware and software."

Peter Wagschal ("A Last Chance for Computers in the Schools?," PHI DELTA KAPPAN, December 1984) states, "The key to efficient use of computers in education is to place the machines in the hands of the individual teacher. . . (to allow the teachers) sufficient hands on experience with computers to give them a pratical understanding of the potential uses (and abuses) of this new technology."

The 1984 SORD report includes a statement that virtually every respondent favored the idea of establishing a Computer Using Educaton (CUE) group in Southern Oregon. Such a group might serve in many capacities, one being the review and selection of software. Kenneth Komoski ("Educational Computing: The Burden of Insuring Quality," PHI DELTA KAPPAN, December 1984), reports on the low quality of available software and the overwhelming quantity from which to choose. He states that (at the time of his report) about 700 educational software companies are producing between 7,000 and 10,000 software packages. He quotes one of the most experienced software developers, saying that when weighing all of the factors that go into developing and marketing educational software, quality was usually accorded only about 5% of the developer's time and attention, while packaging, marketing, and advertising took up the other 95%.

Komoski believes that only a small percentage of the hundreds of available software programs are of truly high quality and that it is the quality of software selected for use in the schools that will, in large, determine the quality of educational computing. Komoski's proposed solution is the use of national evaluation programs which use teams of trained software evaluators such as MicroSIFT and EPIE (Educational Products Information

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Exchange, a consumer supported evaluation agency associated with the Consumers Union).
Earl Ogletree (MICROCOMPUTER USE IN THE SCHOOLS: A RESEARCH REVIEW, 1983, ERIC 252 187) lists the primary concerns of school districts that use computers for instruction as inadequate teacher training, the limited availability of quality software, and the need to establish a regional clearinghouse or state wide consortia.

As the result of a survey by the Oklahoma State Department of Education (1982), the Department has established a new division. Services will include support and leadership in CAI, provision of a special microcomputer technology center as a clearinghouse and site for statewide workshops, and microcomputer curriculum guides. Although a center of such scope may be beyond Jackson ESD's capabilities, a CUE on a smaller scale might be a very prudent move for the educators of Jackson and Josephine Counties in this time of decreasing resources. The time might be right for a regional plan to address software acquisition, distribution, evaluation, and storage, and to plan cooperative inservice activities.

FINDINGS

Makes and Models

Information resulting from the survey related to makes and models of microcomputers in the schools of Jackson and Josephine Counties reveals that there are 763 microcomputers in the 64 reporting schools (77% of the total schools). In the 1984 SORD survey 85% of the schools in the two counties reported having 607 microcomputers. Taking into account the schools that did not respond to the current study, a significant increase in computers appears to have occured in a single year. The breakdown of the major makes of computers according to the 1985 survey is as follows:

Apple	58%
Commodore	26%
TRS-80	10%

The remaining 4% is made up of Atari, Texas Instrument, Compucolor, and IBM. This rank order remains the same as it was in 1984, with an increase in percentages of Apples and Commodores. The researchers' review of national literature revealed that Apple is indeed the market leader with the second two positions reversed, Radio Shack's TRS-80 second, and Commodore third.

Seven of the twelve responding districts reported having adopted one or more specific microcomputer makes. In Phoenix-Talent, Ashland, Pinehurst, Medford, and Grants Pass School Districts, Apple was indicated as the district's commitment at all levels. Central Point and Eagle Point School District have adopted both Apple and Commodore because of differences in applications. Despite this apparent brand commitment, many districts still reported as many as five different makes. The gain in percentage of Apples and Commodores in one year, however, does indicate some narrowing in commitment.

22 schools reported having some type of computer connection to their respective district offices, in total, 29 computer connections in the two counties. Four schools reported direct lines, while 13 reported having phone modems. Five of the schools having computer connections did not respond to the item. The most commonly used system was IBM (five connections). Others were Hewlett Packard, AT&T, Viewpoint, Ventel, and Radio Shack.

Physical Location of Computers in Schools

Computer laboratories have become more popular since the 1984 survey in Jackson and Josephine County schools. The 11985 survey reveals that 49% of the reported 713 microcomputers have been placed in labs, compared with 1984's 39%. This change is in keeping with Henry Becker's belief (op. cit.) that putting computers into a laboratory has generally positive consequences. In Southern Oregon microcomputers placed in classrooms on an

assigned basis accounted for 18% of the total, while classroom rotation accounted for 13%, placement in special education rooms, library, and school office 6% each, and microcomputers in counseling offices, teachers' offices, and staff offices less than 1% of the 713 microcomputers. Two unique placements of microcomputers were in rooms for the visually impaired at Hoover Elementary, and the ESD's Regional Braille Center.

A noteworthy aspect in the placement of microcomputers in the two counties is that 92% of the reported equipment is located for student access. This is an increase over 1984's 90% and a significant difference over the 71% reported in Schimizzi's national survey (op. cit.)

Staff Training

Of the 1,013 individual staff members responding to the survey, 74% reported that they could load and run a computer program. 55% had received formal training in computer literacy (basic operation and functioning of computers) through a course or inservice program while 71% of the respondents had received informal training from colleagues or friends. 31% of the respondents have been trained in computer programming, with 89% of those having learned BASIC, 21% LOGO, and 16% some other language such as FORTRAN, PASCAL, or COBOL. School district inservice accounted for 39% of the total respondents who had taken a computer class of some nature. College credit was earned by 32% of those who had taken computer course work. In the 1984 SORD study, "86% of the schools surveyed had staff members who had taken course work in computer programming and/or computer literacy." However, no distinction was made in the earlier study between the types of coursework.

Staff Use

One intent of this study was to determine how teachers are using microcomputers. In editing the survey instrument, the question "What do you use computers for?" was inadvertently transposed to "What uses do you have for computers?" Consequently, the meaning of the question, to the individuals responding, appeared to be "What would you like to use computers for?" rather than what uses are actually being made. With this limitation in mind, analysis of the responses showed the following results.

Following are the uses (or the desired uses) which staff members indicated, with percentages of responses:

Instruction	62%
Word processing	40%
Personal use	33%
Grade book	26%
Data processing	17%
Programming	16%
Spread sheets	10%

37% of the respondents reported using microcomputers regularly for instruction. The average number of hours per week that respondents actually use computers for instruction was reported to be 7 hours and 10 minutes. Average time for school management was 3 hours and 40 minutes per week. Personal use of microcomputers averaged 3 hours and 23 minutes per week. 23% of the respondents own microcomputers, and 25 individuals take their computers to school for student use.

The use of microcomputers for management was most prevalent in school offices. 48% of the 64 responding schools reported using some type of management program(s) in the school office. Classroom management was reported by 28% of the schools, library management by 19%, and 6% reported use in counseling offices.

Teaching computer literacy was reported by 31% of the total respondents. Of those who reported using computers for instruction, this represents 82%. 87% of computer literacy is taught in labs or classrooms with computers as a "hands-on" experience. 12% of the teachers teach literacy in the classroom without the benefit of computers and 12% teach it in small groups such as TAG groups.

Student Use

Of the 1,013 teachers who returned surveys, 377 (37%), responded that they use microcomputers in instruction. The primary use of computer-assisted instruction (CAI) was drill-and-practice. 84% of the teachers (who responded to the student use items) use drill-and-practice with their students. At the national level, Becker's findings (op. cit.) show that a greater number of schools have reported a decline in the use of microcomputers for drill-and-practice than reported an increase over the initial applications. An important factor when analyzing CAI is the statistics that Bonner reported in his article (op. cit.). Bonner found that 60-80% of the educational software available today falls into the drill-and-practice category. The application of drill-and-practice in schools in Jackson and Josephine Counties certainly is in line with Bonner's findings.

At both the elementary and secondary levels drill-and-practice was the prominent form of CAI with problem solving being second at the elementary level and programming at the secondary. In the national picture, Becker also found drill-and-practice to be the most employed activity at the elementary level, but found programming to be preferred in secondary schools. Schimizzi (op. cit.) indicated that drill-and-practice and problem solving were the prevalent forms of CAI. The results of this 1985 study might well be skewed due to one or both of the following considerations: low teacher response rate, and/or the ratio of secondary computer programming teachers to other content area teachers who also use computers. Over all, student use of computers, according to responses, can be summarized as follows:

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Problem solving	61%
Programming	48%
Tutorial	38%
Word processing	33%
Simulation	25%
Data processing	5%
Spread sheets	2%

The primary computer language taught, according to responses, is BASIC, followed by LOGO.

Reported student time on computers varied between elementary and secondary, and among subject areas in secondary. A total of 372 respondents answered the question of how much time per week each student spent working at a computer. This number represented 37% of all returned surveys and 99% of the teachers who use CAI. Many respondents reported that they did not have access to a computer on a regular basis, so their students only worked on computers a few weeks out of the year. Such responses were excluded from this summary. Students regularly utilizing computers averaged one hour of use per week. The average time reported in surveys returned by elementary schools (248, or 67%) was 40 minutes per week, higher than the 23 minutes per week reported by Becker (op. cit.). Analyzing the various responses of individual teachers shows a close correlation with Schimizzi's finding (op. cit.) of microcomputer time varying from 15 to 60 minutes per week.

101 responses at the secondary level indicated an average of one hour and 35 minutes a week per student, twice that of elementary computer-using students. In content areas, students in computer classes had about twice the amount of time on computers as students in other areas. A summary of student time on computers follows:

Number of Respondents and/or Classes	Content Area	Time Spent on Computers
14	Computer Class	3 hours and 10 minutes per week
14	Business	2 hours and 45 minutes per week
24	Math	1 hour and 43 minutes per week
8	Language Arts	1 hour and 32 minutes per week
6	Science	1 hour per week

Additionally, 41 special education teachers, from all grade levels, reported using computers with a wide range of special education students (including visually handicapped) on an average of one hour and 24 minutes a week. Although these averages are higher than reported by Becker (op. cit.), 45 minutes per week for secondary students, it should be noted that special educaion represents only a small percentage of the total student population. The quality of time spent on computers was not examined.

Curriculum

The 1984 SORD survey showed only one district in Jackson and Josephine Counties that had a district-wide computer curriculum in place and functioning. Two districts were in the process of developing curricula. This fact was a major concern of the researchers. In the 1985 survey, one district indicated development and implementation of a district-wide curriculum; seven districts were in the process of developing curricula; and nine separate schools in districts without district-wide plans had school plans of their own, compared to only five schools in 1984. Additionally, six schools were developing plans at the time of this survey.

Curriculum integration was an area added to the 1985 survey. The degree of integration was not clearly determined, only the subjects in which computers were being used. The area of the curriculum in which microcomputers were most used was math. 39 schools responded to this item. Use of computers in the content areas, based on the 39 responses, can be summarized as follows:

Math	77%
Language	66%
Reading	59%
Spelling	51%
Social studies	38%
Science	38%
Business	18%
Music	13%

Computers were used by less than 1% of the responding schools in home economics, art, health, agriculture, and shop.

26 elementary schools and 13 secondary schools responded to the curriculum integration question. Math was the subject with heaviest computer use in both elementary, 81%, and secondary, 85%. Language was second with 69% of the 26 elementary schools and 77% of the 13 secondary schools. Other subjects in elementary grades which microcomputers are used:

Reading	65%
Spelling	54%
Social studies	46%
Science	35%
Art	15%
Music	12%

Subjects at the secondary level in which computers are used:

Reading	62%
Spelling	62%
Business	54%
Science	54%
Social studies	31%

Agriculture	31%
Shop	31%
Music	23%
Home economics	23%
Health	8%

25 of the responding schools reported using classified staff in computer instruction. Classified staff duties were varied: monitoring one half of a classroom while the other half was in the lab, monitoring a computer lab, computer management in the office and library, assisting students with computers in special education, and teaching computer classes in literacy and LOGO.

27 schools responded to the question of adult education. Of the 27 responding, 92% offered classes in computer literacy and 48% offered classes in programming. Other classes offered were word processing and accounting. Computer orientation for parents had taken place in 16 of the 64 responding schools. The majority of schools responding had some type of orientation as a part of an open house in which computers and software were demonstrated by students and computer education was discussed. Three of the responding schools provided "hands-on" time for parents.

Software

As in the 1984 SORD report, the responses dealing with software evaluation, cataloging, storage, and inservice were almost as varied and as numerous as the schools reporting. Evaluation methods ranged from assigning an individual teacher (such as the computer coordinator) the task, to having a committee review software and journals and make recommendations. Committees were reported at both school and district levels. Several schools reported ordering software from companies that allow a 30-day free trial. One school examines the software to see if it meets defined educational objectives. The lack of funds has prevented several schools from purchasing any software beyond that initially provided with the new equipment.

Software storage was reported to be in one of three areas: in the computer lab, library/media center, or individual classrooms. Storage containers ranged from file boxes to folders, notebooks, and file cabinets. One school stores all master disks in a fireproof metal file cabinet--a commendable practice.

Cataloging software poses a new challenge for many media specialists, as it was probably not a part of their initial training. Some schools have not realized a need for cataloging at this point, while others have develped both creative and traditional ways to catalog according to needs. Several schools have compiled annotated bibliographies of software for each teacher. Card files are also a popular form of cataloging. One school catalogs its software in the library card catalog according to the Dewey Decimal system, while another school reported that all software was

cataloged at the district level.

One respondent summed up the introduction of software in three words, "hit and miss," which appears to be the method for many schools. The majority of schools introduce new software in staff meetings. This usually indicates demonstration rather than "hands on" for the teachers. A few schools reported that teachers try software in small groups or individually. Interest was the key to who was involved. One school reported extending demonstrations of software to emphasize how software relates to and simplifies teacher tasks. Some of the more informal methods involve bulletins, word-of-mouth, or not at all.

Teacher Needs

One objective of this survey was to determine further training, inservice, or other needs that teachers might have concerning the use of computers in the classroom. The vast majority of responding teachers stated some area of need, but three major needs surfaced which appear to be outstanding.

At least one teacher in each school of the two counties stated that any kind of computer training at all would be helpful. Apparently, many teachers have few or no basic computer skills but are open to acquiring them. Many stated the need for training in basic skills and operation as well as assistance in incorporating computers into the curriculum. Most suggested in-school time, school provided inservice, or an in-school resource person available to the staff.

The second most frequently mentioned need to basic skills training was "hands-on" time with the computer. Respondents repeatedly mentioned the need for in-school time for training and/or time to familiarize themselves with the computer and software.

The third most frequently mentioned need was assistance with, or some organized method of software evaluation. An awareness of quality software and the time to use it on a trial basis was also mentioned. In conjunction with this area was the need for assistance in incorporating available software into the existing curriculum.

The major needs of training, "hands-on" time, and software availability and evaluation are echoes of responses to the 1984 survey. In Paul Rickerson's Jackson ESD report (op. cit.), he also concluded the major needs of special educators in the county to be increased training and support.

On the national level, David Moursund (op. cit.) and Thomas Wilson (op. cit.) both concluded that providing teachers with training and "hands-on" time will be the key to effective and efficient incorporation of computer education in our nation's schools.

Below is a sampling of the varied needs that teachers expressed on their surveys.

Use of computers in classroom setting

A good non-technical how to operate computers and software inservice

Coordination of computer instruction with minimum resources, keyboarding techniques, integrating computer and curriculum

Our district has not adopted a curriculum plan for computers so staff does not have a specific direction at this time. Lack of time for program familiarization is a problem.

Programming, logo, management, familiarization with software, scope and sequence for each grade level

How to edit programs to put in own data, how to use computer time to best advantage

We need to have inservice so staff can set goals for the computer so that we are united in purpose.

How to convince administration/school district we need to purchase software for use in computer/business classes!

How to integrate computers into the day and the regular curriculum.

We need a recommended list of good software educational programs to be purchased.

How to set up a lab with a full time certified person to run it and work with all classrooms.

Special Projects

The final question on the individual teacher survey asked for innovative projects that were designed or being used by teacher or students. The following projects are a sample of the many unique responses received. The school and district have been noted for anyone who wishes to follow up on an area of interest.

PHOENIX-TALENT SCHOOL DISTRICT # 4

Phoenix High School: Teaches robotics and data communication.

ASHLAND SCHOOL DISTRICT # 5

Ashland High School: Gerry Merryman, English Dept., Ashland High School has devised a very sophisticated way of teaching word processing, editing,

revising, etc.

CENTRAL POINT SCHOOL DISTRICT # 6

Crater High: The physics class is designing an eductional program for the ERC classroom.

Richardson: Music synthesizing.

BUTTE FALLS SCHOOL DISTRICT # 91

Butte Falls High: Uses a teacher designed psychological test. Another teacher has written shop programs: bill of materials, inventory, board feet, etc. The teacher uses the computer in the shop for woods, welding, and auto.

MEDFORD SCHOOL DISTRICT # 549C

Howard Elementary: Literacy is taught by parent volunteers and the library aide.

Medford Senior High School: Programs designed for chemistry and biology, simulations, games, and drill.

GRANTS PASS SCHOOL DISTRICT # 7

Lincoln Elementary: Using the word processor to word-list and brainstorm group stories and to proofread paragraphs.

North Valley Middle School: A LOGO design contest and a skills contest.

Grants Pass High School: Many new programs are being developed to assist counselors.

JOSEPHINE COUNTY

Fruitdale Elementary: Using the word processor to write and publish books.

Fort Vannoy: Using the computer to track first graders through three years for reading progress and attitude.

Illinois Valley High School: Using the computer to verify correct answers, record student records, issue passes, assign detention, and prepare daily progress reports for parents. A VCR tape of the method is available.

JACKSON ESD

Shasta Elementary, Klamath Falls (Jackson ESD Employee): Using a computer to develop the class' first newsletter, a very motivating experience.

Teacher Concerns

A major concern evident in individual teacher comments provided on the surveys was little or no computer access available for some classrooms. This fact is one of double concern. If computer literacy is considered a necessary and basic skill for today's student, as suggested by Jerry Willis (op. cit.), some schools are clearly not meeting these needs. A second, related concern, is that of inequities in computer experiences. Some survey responses indicated a strong computer education curriculum and/or integration into subject areas, while other schools reported a lack of curriculum and/or integration (often occuring within the same district). Equity in computer education and school experiences was the major problem addressed in Patricia Campbell's 1985 article (op. cit.).

Some of the teacher comments representative of this problem follow:

> We have no computers available for classroom use.
>
> We are supposed to teach literacy, but we don't because nothing is available in our school. No computers, no inservice, no curricula, no materials.
>
> I would use computers if they were made available to us.
>
> My class needs the use of a computer, but does not have one.
>
> I have a masters in math and hundreds of hours of experience running computers, and I do not have access to a computer here.
>
> I have written shop programs, but do not have a computer in class. I would use one 50% of the time if I had one.
>
> There are not enough computers to do anything with.
>
> I have 50 students, 7 classes, and 2 computers.
>
> Not all students use computers.
>
> The only students currently using computers are two TAG students and those students are sent to the media center.
>
> The time per student varies from 10 minutes a week to one and a half hours a week.
>
> Computer check out allows each child only about two hours of time per year

CONCLUSIONS AND QUESTIONS

1. The number of microcomputers in the schools of the two county region increased significantly in the months between the two SORD studies. Apple and Commodore continue to constitute the majority of computers in the schools. They also contribute to a larger portion of the total than indicated in the 1984 report. Seven of the twelve responding districts reported having adopted these two specific microcomputer makes, indicating an apparent trend toward comprehensive planning on the part of these school districts. This trend may possibly lead to greater efficiencies in planning, repair, maintenance, and initial purchase, major concerns of the 1984 study.

2. Henry Becker (op. cit.) concluded from his study that putting computers into a laboratory has generally positive consequences. The findings of this 1985 report indicate that schools in these two counties are indeed moving toward this model. The 1985 survey reports 49% of microcomputers have been placed in labs, compared with 39% in 1984. However, the smaller number of respondents to the 1985 survey might make the comparison inaccurate. If the same schools had reported as did in 1984, the larger response rate might have brought the 1985 percentage down.

3. Responding teachers overwhelmingly stated three major areas of need related to the improvement of computer education: training, time for "hands-on" experience, and an organized system for software evaluation and acquistion. Earl Ogletree (op. cit.) echoed these concerns in his 1983 report. The 1984 survey suggested that it might be prudent for educators in the two counties to enter into a cooperative Computer Users Education (CUE) group. Such a group could provide for the sharing of software acquisition, distribution, evaluation, storage, staff training, and curriculum planning. This year's study indicates that there may be an even growing need for such a group. If a CUE is not formed, and if districts believe computer education to be important, they may need to ask themselves how they are going to address these needs within their own districts to better facilitate CAI.

4. At both elementary and secondary levels drill-and-practice was the prominent form of CAI, with problem solving emerging as second at the elementary level, and programming second at the secondary. This may reflect the fact that 60 to 80% of the manufactured software is in the drill-and-practice domain. Software evaluation committees (or the suggested CUE group) may need to consider this fact and explore problem solving, simulation, and tutorial type software that is becoming increasingly more available on the market. Teachers also need to be made aware of the other software applications available and be given training which would help with implementation and integration of such software.

5. The 1984 survey yielded information that only one district in the two counties had a district-wide computer curriculum in place and functioning. At that time, two districts were in the process of developing programs. This was a major concern of the researchers. During the past year one additional district has developed and implemented a district-wide curriculum. Seven districts are in the developmental process. Considering the number of microcomputers present in the schools (without district-wide plans), it seems appropriate to restate the concern of the 1984 report. It is also worth mentioning Schimizzi's statement in his 1983 study (op. cit.) that "the lack of systematic and comprehensive long-term district planning before microcomputer acquisition was the major weakness in integrating microcomputers into school programs." If educators in a single district believe a comprehensive computer curriculum is beneficial to the educational program, they may need to consider methods such as hiring a district computer coordinator.

RESOURCE PEOPLE

The following list includes names of people indicated in surveys, and their areas of expertise (if provided in the response):

PHOENIX-TALENT SCHOOL DISTRICT # 4

Orchard Hill Elementary	Bob Davis and Dave Knox
Phoenix Elementary	Nancy Olsen, Fred Walter, Kathy McMurtrey
Talent Elementary	Pam Sessions
Talent Junior High	Janie Stewart, media
Phoenix High School	Herb Hinds, math Donna Clement, word processing Steve Goodkin, reading

ASHLAND SCHOOL DISTRICT # 5

Briscoe Elementary	Jim Stewart, total program Linda Fichera, class application (K) Adrienne Hawkey, class application (grade 2) Debi Coleman, class application (grade 3) Michele Stewart, class application (grade 5)
Lincoln Elementary	Chuck Thacker, word processing, LOGO Richard Gurwell, LOGO Daniel Hamnett, word processing Therese Wangen, word processing, LOGO
Ashland Junior High	Glenn Gertson Dave Hennan, spread sheet, data base Gerry Kimball, programming

CENTRAL POINT SCHOOL DISTRICT # 6

Jewett Elementary	Rich Miles, programming, staff training, school newspaper, lab coordinator
Richardson Elementary	Jan Keller and Pat Bartlett
Hanby Junior High	David Miller
Scenic Junior High	Steve Swisher, general system overview Dale Sandberg, programming Jim Gmur, programming

Crater High School	Mike Prinslow, programming Ed Zobel, programming Carol Frank, data base (library) Lillian Maddox, business
EAGLE POINT SCHOOL DISTRICT # 9	
Glenn D. Hale Elementary	Carolee Jones, Sharon Aebischer, Mary Kay Jones, Marie Ostkmo, Barbara Lowe, Marsha McHugh, Kristin Ginther, Alice Collier
Little Butte Intermediate	Joy Reich, LOGO/TOPO, management
White City Elementary	Goly Ostovar, Terri Johnson
White City Intermediate	Dave Uhreen, programming
Eagle Point Junior High	Kathryn McGuire, BASIC programming Masel Meinhardt, media specialist
ROGUE RIVER SCHOOL DISTRICT # 35	
Evans Valley Elementary	David Harrison
Rogue River Middle School	Keith Ruska
Rogue River High School	Larry Robin, computer science
PROSPECT SCHOOL DISTRICT # 59	
Prospect High School	Don Alexander, programming Judy Graham, word processing
BUTTE FALLS SCHOOL DISTRICT # 91	
Butte Falls Elementary	John Sipple, all areas
Butte Falls High School	Tom Dishman, industrial arts simulation William Hartley, math, math games Juanita Morris, business, word processing, computer literacy
MEDFORD SCHOOL DISTRICT # 549C	
Griffin Creek Elementary	Clayton Gillette, advanced Mike Ritchie, intermediate, software evaluation system

Howard Elementary	Joani Bristol, general
Jackson Elementary	Beverly Gettling, Apple IIe, PFS Jim LeRoy, computer programs Mary Schlotter, Franklin (MECC)
Jacksonville Elementary	Elaine Reisinger, Mary Jo Follett
Jefferson Elementary	Tom Sprott
Lone Pine Elementary	Vern Goodrich, Shirley How
Ruch Elementary	Mike Hartwell, general Meridel Hedges, general
Wilson Elementary	Norene French, prescription learning Ruth Draper, CAI Lory Bohm, word processing, spread sheets Joyce Squire
McLoughlin Junior High	Don McNair, teacher/coordinator Shirley Thompson, aide/coordinator Betty Jones, librarian
Medford Mid High School	Rick Lindsey, software Tirzah Barlow, software Larry Lemon, software, hardware
Medford Senior High	Jim Scharaga, electronics Lee Manning, physics John Warmington, English

GRANTS PASS SCHOOL DISTRICT # 7

Highland Elementary	Jim Skibby, programming, word processing, data base Cindy Bigelow, LOGO
Lincoln Elementary	Bonnie Sperbeck, computer task force
Riverside Elementary	Linda Austin, LOGO, computer literacy, application of software in special education classroom
North Middle School	Brent Freeman, computer usage Sue Loube, computer literacy Nancy Hitchcock

South Middle School	George Fox, programming, resource Cleo Hughes, programming, resource Judy Jacoby, resource
JOSEPHINE COUNTY	
Fort Vannoy Elementary	Jeanette Campbell, Chapter I records Barbara Burns, office records
Fruitdale Elementary	Ann Morgan, librarian Juanita Silver, secretary
Manzanita Elementary	Harvey Denney
Fleming Middle School	Jim Christensen, BASIC programming Jerry Dawson, BASIC programming Terry Stoddard, BASIC programming
Lincoln Savage Middle School	Martin Steiner, BASIC (grade 7/8) Jeff Eyman, computer literacy (grade 6)
Hidden Valley High School	Ed Frankel, programming Larry Phillips, applications
Illinois Valley High School	Lloyd Smith, programming
North Valley High School	Bob Amos, computer science coordinator, programming, simulation, physical sciences Steve Bissett, English, remedial reading, writing, word processing Judy Johnson, business, word processing
JACKSON EDUCATION SERVICE DISTRICT	
Instructional Media Center	Lee Trippett, computer specialist
Jackson Alternative School	Mickey Ketchum, word processing, data base Ben Bergreen, general
Educational Resource Centers (ERC)	Paul Rickerson, hardware, software, software evaluation, special ed applications
Regional Programs	Dennis Snow, hardware, software, programming
SACRED HEART ELEMENTARY	
Sacred Heart Elementary	Brian Crosby, Computer Education

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APPENDIX

School Survey 29

Teacher Survey 30

SOUTHERN OREGON RESEARCH
AND DEVELOPMENT COMMITTEE
Jackson ESD

April 1985

COMPUTERS IN THE SCHOOLS - SECOND REPORT

I. DEMOGRAPHICS

School_____

Inclusive Grades_____ Number of students_____

Number of staff: _____ Certificated

_____ Classified

_____ Administration

Questionnaire completed by_____

Position_____ Telephone_____

II. MAKES AND MODELS OF MICROCOMPUTERS

A. How many of each make and model of microcomputers are used in your building?

Number	Makes	Models	Number	Makes	Models
_____	TRS-80:	I	_____	Atari:	400
_____		III	_____		800
_____		IV	_____	Franklin	
_____	Apple:	II+	_____	Texas Instrument	
_____		IIe	_____	Compucolor	
_____		IIc	_____	Timex Sinclair	
_____		Macintosh	_____	Ohio	
_____	Commodore:	Pet	_____	IBM	
_____		Vic 20	_____	Other	
_____		Com 64	_____		

B. If teachers have brought their own personal microcomputer to school for use in the classroom, please indicate on the appropriate line (above list) with the notation (+1).

C. Has the district:

_____ Officially adopted one or more of the makes listed above? If so, which one(s)?

_____

_____ Made no district commitment, but let individual schools decide on their preferred makes and models.

III. MICROCOMPUTER LOCATIONS

A. What is the number of computers located in:

_____ a computer lab. Are they networked? ___yes ___no

_____ classrooms on a scheduled rotation.

_____ A classroom indefinitely on an assigned basis.

_____ special education classroom.

_____ library.

_____ school office.

_____ counseling office.

_____ individual teachers' offices.

_____ staff room.

_____ other: _____

B. Are any of the computers in your school connected to the district office? ___yes ___no

C. If any are connected, how many? _____

Is the connection by:

_____ direct line? ____ modem?

What system is being used? _____

D. Does your building use any management programs in:

_____ the school office _____ the library

_____ the counseling office _____ the classroom

IV. STAFF USE OF COMPUTERS

A. Please identify any computer resource persons from your building and note their area of expertise:

_____

_____

_____

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Over, ple

B. What further training or inservice needs does your staff have?

_____

_____

_____

C. Are you using classified staff in computer ed?
___yes ___no

If "yes," please explain in what way(s):

_____

_____

_____

V. PARENT EDUCATION

A. Has your district provided any adult education programs dealing with microcomputers? ___yes ___no

If so, what type?

_____ Computer literacy

_____ Computer programming

_____ Other: _____

B. Has your building provided any parent orientation to computers such as a computer fair? ___yes ___no

If "yes," please describe briefly:

_____

_____

_____

VI. CURRICULUM

A. Are computers integrated into curriculum content areas?
___yes ___no

If "yes," please check which subjects:

_____ Reading	_____ Science
_____ Math	_____ Social Studies
_____ Language	_____ Art
_____ Spelling	_____ Health
_____ Business	_____ Agriculture
_____ Music	_____ Shop
_____ Home Ec	_____ Other: _____

B. Does your school have a planned scope and sequence for computer education:

At the building level? ___yes ___no

At the district level? ___yes ___no

Is the plan:

In the development stage? ___yes ___no

In place? ___yes ___no

Functional? ___yes ___no

C. Are you willing to contribute a copy of your curriculum plan, or a brief outline of the plan?

___yes ___no If "yes," please attach to survey.

VII. SOFTWARE

A. How is software evaluated for purchase at your building, and by whom?

_____

_____

B. What is the system in your school for software storage, cataloging, and being made available for teacher and student use?

_____

_____

_____

_____

C. How is new software introduced to staff and/or students?

_____

_____

_____

VIII. FUTURE POSSIBILITIES FOR RESEARCH OR STAFF DEVELOPMENT

A. What computer related problems would you like SORD (or another committee or agency) to research?

_____

_____

_____

SOUTHERN OREGON RESEARCH
AND DEVELOPMENT COMMITTEE
Jackson ESD

April 1985

COMPUTERS IN THE SCHOOLS - SECOND REPORT (Teacher Survey)

Please complete this form and return it to the person in your building who has been designated to receive it. If no one has been named, please return the form to your school office.

The information you and other teachers in Jackson and Josephine Counties provide will be summarized, and SORD will send resulting information to every school next fall. Thank you for your help!

School_____

Are you: ___ an administrator?

___ a certificated staff member?

Grade level____ or content area_____

Number of students assigned to you_____

STAFF USE OF COMPUTERS

1. Can you load and run a microcomputer program? ___yes ___no

2. Have you received formal training, through a regular course or inservice, in computer literacy (basic operation and functions of computers)? ___yes ___no

3. Have you taken a course in computer programming? ___yes ___no

   If "yes," what language(s)?

   ___Basic ___LOGO ___Other:_____

4. Have you taken a computer class which was school district inservice? ___yes ___no

5. Have you taken a computer class for college credit? ___yes ___no

6. Have you received informal training in the operation of computers from colleagues, friends, etc? ___yes ___no

7. Do you own and operate your own computer? ___yes ___no

8. What uses do you have for computers?

   ___Instruction ___Grade book

   ___Programming ___Spread sheet data

   ___Word processing ___Personal use

   ___Data processing ___Other: _____

9. Approximately how many hours a week do you use a computer?

   ___For classroom instruction? ___For school management?

   ___For personal use?

10. If you have an area of "expertise" in computers, please indicate the area.

    _____

11. What further training or inservice needs do you have?

    _____

STUDENT USE OF COMPUTERS

1. Do you teach computer literacy (not programming) in your class(es)? ___yes ___no

   If "yes," at what grade level(s)? _____

   How is it being taught? (Check appropriate choices).

   ___In the classroom without computers.

   ___In the classroom or lab with computers.

   ___Within regularly organized groups for instruction (i.e., TAG class)

2. How are computers being used by students? (Please indicate approximate number of students using computers in each of the listed areas).

   _____Drill and practice (i.e., multiplication facts)

   _____Problem solving (thinking skills)

   _____Simulation (things too small, big, or expensive to do normally in class)

   _____Tutorial (learning new concepts)

   _____Programming _____Basic _____LOGO _____Pascal

   _____COBOL _____Graphics Language

   _____Word processing

   _____Data processing

   _____Spread sheets

3. Approximately how much time per week does each student in your class use computers?

   _____

4. What innovative projects have you or your students designed to make use of computers?

   _____

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